

CLAIMS

The listing of claims below replaces all prior versions, and listings, of claims:

- 1 1. (Cancelled)
- 1 2. (Previously Presented) An apparatus for use in a wellbore, comprising:
2 an element formed of a superplastic material to perform a predetermined
3 downhole task; and
4 a component including a seal engageable with the element.
- 1 3. (Previously Presented) An apparatus for use in a wellbore, comprising:
2 an element formed of a superplastic material to perform a predetermined
3 downhole task; and
4 a component including an anchor actuatable by the element.
- 1 4. (Cancelled)
- 1 5. (Previously Presented) An apparatus for use in a wellbore, comprising:
2 an element formed of a superplastic material to perform a predetermined
3 downhole task,
4 wherein the element includes a sand screen.
- 1 6. (Previously Presented) An apparatus for use in a wellbore, comprising:
2 an element formed of a superplastic material to perform a predetermined
3 downhole task; and
4 a shock absorber including the element.
- 1 7. (Previously Presented) An apparatus for use in a wellbore, comprising:
2 an element formed of a superplastic material to perform a predetermined
3 downhole task; and
4 a releasable connector mechanism including the element.

1 8. (Previously Presented) An apparatus for use in a wellbore, comprising:
2 an element formed of a superplastic material to perform a predetermined
3 downhole task; and
4 an explosive component including the element.

1 9. (Original) The apparatus of claim 8, wherein the explosive component
2 includes a shaped charge.

1 10. (Previously Presented) An apparatus for use in a wellbore, comprising:
2 an element formed of a superplastic material to perform a predetermined
3 downhole task; and
4 a weak point connector including the element.

1 11. (Previously Presented) An apparatus for use in a wellbore, comprising:
2 an element formed of a superplastic material to perform a predetermined
3 downhole task; and
4 a heating device to heat the element to a temperature sufficient to cause
5 the element to exhibit superplastic behavior.

1 12. - 26 (Cancelled)

1 27. (Previously Presented) The apparatus of claim 2, wherein the element is
2 adapted to translate the seal into engagement with a downhole structure.

1 28. (Previously Presented) The apparatus of claim 27, comprising a packer.

1 29. (Previously Presented) The apparatus of claim 27, comprising a patch.

1 30. (Previously Presented) The apparatus of claim 27, further comprising a
2 heating device to heat the superplastic material to a temperature such that the element
3 exhibits superplastic behavior.

1 31. (Previously Presented) The apparatus of claim 30, further comprising a
2 piston adapted to cause translation of the element.

1 32. (Previously Presented) The apparatus of claim 30, wherein the heating
2 device comprises a propellant.

1 33. (Previously Presented) The apparatus of claim 2, further comprising a
2 conduit, wherein the element comprises a plug to block fluid flow in a bore of the
3 conduit.

1 34. (Currently Amended) ~~The apparatus of claim 33, further comprising An~~
2 apparatus for use in a wellbore, comprising:
3 an element formed of a superplastic material to perform a predetermined
4 downhole task;
5 a component including a seal engageable with the element;
6 a conduit, wherein the element comprises a plug to block fluid flow in a
7 bore of the conduit; and
8 a port to communicate fluid pressure to deform the plug inwardly to
9 enable movement of the plug.

1 35. (Previously Presented) The apparatus of claim 3, wherein the component
2 comprises a packer including the anchor.

1 36. (Previously Presented) The apparatus of claim 35, wherein the packer
2 further comprises a seal,
3 wherein the element comprises one or more sleeves attached to the anchor
4 and the seal, the one or more sleeves adapted to translate the anchor and seal into
5 engagement with a downhole structure.

1 37. (Previously Presented) An apparatus for use in a wellbore, comprising:
2 an element formed of a superplastic material to perform a predetermined
3 downhole task,
4 wherein the element is selected from the group consisting of a casing, a
5 liner, a tubing, and a pipe; and
6 a heating device to heat the element to a temperature such that the element
7 exhibits superplastic behavior.

1 38. (Previously Presented) The apparatus of claim 5, further comprising a
2 heating device to heat the sand screen to a temperature such that the sand screen exhibits
3 superplastic behavior.

1 39. (Previously Presented) The apparatus of claim 11, wherein the heating
2 device comprises a propellant.

1 40. (Previously Presented) An apparatus for use in a wellbore, comprising:
2 an element formed of a superplastic material to perform a predetermined
3 downhole task; and
4 a fishing tool for a downhole conduit structure, the fishing tool comprising
5 the element.

1 41. (Previously Presented) The apparatus of claim 40, wherein the element is
2 adapted to expand to engage an inner well of the conduit structure.

1 42. (Previously Presented) An apparatus for use in a wellbore, comprising:
2 an element formed of a superplastic material to perform a predetermined
3 downhole task;
4 a junction seal assembly comprising the element; and
5 a heating device to heat the element to a temperature such that the element
6 exhibits superplasticity.

1 43. (Previously Presented) The apparatus of claim 42, wherein the element
2 comprises one of a tubing and pipe to be inserted into a lateral wellbore.

1 44. (New) The apparatus of claim 2, wherein the superplastic material
2 exhibits elongation to failure in excess of 200%.

1 45. (New) The apparatus of claim 2, wherein the superplastic material has a
2 fine equi-axed grain structure that remains stable during deformation.

1 46. (New) The apparatus of claim 45, wherein a grain size of the fine
2 equi-axed grain structure is in a range of 2 to 10 micrometers.

1 47. (New) The apparatus of claim 3, wherein the superplastic material
2 exhibits elongation to failure in excess of 200%.

1 48. (New) The apparatus of claim 3, wherein the superplastic material has a
2 fine equi-axed grain structure that remains stable during formation.

1 49. (New) The apparatus of claim 48, wherein a grain size of the fine
2 equi-axed grain structure is in a range of 2 to 10 micrometers.